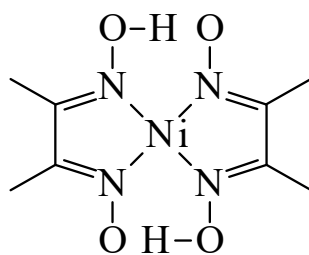




>>Entry Name: Bis(dimethylglyoximate)nickel

Synonym(s): Bis(2,3-butanedione dioximato)nickel, 9Cl, 8Cl. Nickel(II) dimethylglyoximate



CAS Registry Number: 13478-93-8

Related CAS Registry Numbers(s): 46755-15-1

Molecular Formula: $C_8H_{14}N_4NiO_4$

Molecular Weight: 288.913

Accurate Mass: 288.036852

Percentage Composition: C 33.26%; H 4.88%; N 19.39%; Ni 20.31%; O 22.15%

General Statement: Square planar struct. with H-bonding between O. Solid state structure is 1-D column of stacked plates (Ni-Ni 325 pm)

Use/Importance: Used in gravimetric analysis for Ni. Ligand reactions with BF_3 , $B(OR)Ph_2$ give macrocyclic complexes

Physical Description: Red needles ($PhNO_2$)

Boiling Point: Subl. 250°

Solubility: Sol. C_6H_6 , $PhNO_2$, EtOH; insol. H_2O

References:

Godycki, L.E. *et al.*, *Acta Cryst.*, 1953, **6**, 487, (*cryst struct*)

Williams, D.E. *et al.*, *J.A.C.S.*, 1959, **81**, 755, (*cryst struct*)

Orel, B. *et al.*, *Spectrochim. Acta A*, 1980, **36**, 859, (*ir, uv, Raman*)

Compr. Coord. Chem., Pergamon, Oxford, 1987, **6**, 184, (*reaction*)

Vogel's Textbook of Quantitative Inorganic Analysis, 5th Ed., Longmans, London, 1989, 462, (*synth, use*)